


# IDU ISSUES

## newsletter

March 14, 2007 • Volume 24


California Department of Health Services, Office of AIDS

 On Friday, the California Department of Health Services, Office of AIDS announced the awards for the *Peer-Based HIV Prevention among Injection Drug Users and Satellite Syringe Exchangers in California funding initiative*. The Request for Applications invited qualified local health jurisdictions (LHJs) and community based organizations (CBOs) interested in implementing and evaluating peer-based prevention programs among IDUs and satellite syringe exchangers (SSEs). OA announced that it would fund five programs for a total of \$100,000 each year for three years.

Fourteen applications were received, all of which presented strong program plans and innovative ideas. Five awards were made: to Clean Needles Now/Public Health Foundation Enterprises in Los Angeles, Family Health Centers of San Diego, HIV Education and Prevention Project of Alameda County in Oakland, Safer Alternatives through Networking and Education in Sacramento, and Tenderloin Health/Homeless Youth Alliance in San Francisco. In this, the second cycle of the project, project partners will document effective ways of working with SSEs and will contribute to a guidebook that will be made available to service providers across the state. CDHS/OA wishes to thank all the applicants for their hard work and dedication to HIV prevention and health promotion among IDUs.

### **"Los Angeles County Board of Supervisors Approves Needle-Exchange Program to Curb Spread of HIV"**

Los Angeles Times • March 14, 2007

 The Los Angeles County Board of Supervisors on Tuesday voted 3-2 to approve a needle-exchange program in an effort to curb the spread of HIV and other bloodborne diseases, the *Los Angeles Times* reports. The one-year program is expected to cost about \$500,000, which will be paid for with tobacco settlement funds. According to Public Health Director Jonathan Fielding, there are an estimated 120,000 to 190,000 injection drug users in Los Angeles, 45% of whom share needles. The needle exchange program, which will target heroin users, will be available at the Asian American Drug Abuse Program, BIENESTAR, Common Ground-The Westside HIV Community Center, Public Health Foundation Enterprises/Clean Needles Now and Tarzana Treatment Centers. Supervisors Mike Antonovich and Don Knabe questioned the benefits of a needle-exchange program and said that money should be used for education and rehabilitation. Supervisors Gloria Molina, Yvonne Brathwaite Burke and Zev Yaroslavsky voted to approve the program.

Source: Kaiser HIV/AIDS Daily Report

For more information about IDU-related issues please contact Alessandra Ross, IDU Policy & Program Coordinator, at [aross@dhs.ca.gov](mailto:aross@dhs.ca.gov), or Tom Stopka, Research Scientist, at [tstopka@dhs.ca.gov](mailto:tstopka@dhs.ca.gov).

Information about pharmacy access to syringes (Senate Bill 1159) is available at [www.syringeaccess.com](http://www.syringeaccess.com).

## **“Needle-Exchange Programs Experiencing Local Budget Cuts, Federal Funding Ban Despite Research Showing Programs’ Effectiveness”**

USA Today/Associated Press • March 13, 2007

**A**lthough research shows that needle exchange programs help reduce the spread of HIV without increasing drug use, local budget cuts and a federal funding ban for such programs in the U.S. and overseas are hampering the programs at a time when injection drug use is playing a major role in the HIV/AIDS pandemic, advocates say, the AP/USA Today reports. CDC data through 2005 show that about one-fourth of the approximately 950,000 cumulative AIDS cases in the U.S. involved injection drug use, the AP/USA Today reports. Former HHS Secretary Donna Shalala determined in 1998 after the release of several studies that needle-exchange programs reduce the spread of HIV and do not encourage the use of illegal drugs. The programs also seek to link IDUs with treatment. However, critics say needle-exchange programs promote risky behavior and undermine efforts to fight drug abuse. “Funding for needle-exchange programs in the United States has always been difficult because the governmental bodies have never wanted to support what they see as a morally slippery intervention,” Peter Havens of the Medical College of Wisconsin said. A needle-exchange program in New Haven, Conn., was “touted as a national model” after a Yale University professor in the early 1990s was among the first to document the relationship between needle-exchange programs and reduced HIV transmission. According to AP/USA Today, Connecticut Gov. M. Jodi Rell’s (R) proposed state budget would remove about \$100,000 from the \$500,000 spent on needle-exchange programs in New Haven, Hartford, Danbury, Stamford and Bridgeport. Officials said that the reduction in funding would make it difficult to operate the New Haven program and could result in the closure of some of the other programs. Rell spokesperson Rich Harris said, “What the governor has had to do is make some choices about where she is going to spend limited state resources.” Needle-exchange programs have grown slowly in other states

nationwide through private and state funding, and there are nearly 200 such programs nationwide. Physicians for Human Rights last week held congressional briefings to garner support for needle-exchange programs and other initiatives to prevent the spread of HIV among IDUs. PHR also is advocating for the U.S. to lift constraints on programs receiving U.S. funding so they can work with needle exchange programs funded by other donors.

*Byline: John Christoffersen*

*Source: Kaiser HIV/AIDS Daily Report*

## **“In-Hospital Needle Exchange Seen Cutting Infection Risk”**

Telegraph-Journal (New Brunswick) • March 7, 2007

**T**wo doctors in Saint John are hoping to establish, within six months, a needle exchange for hospitalized injection drug users (IDUs).

IDUs typically continue injecting while hospitalized and may hide or hoard used needles because they do not have access to clean ones, said Dr. Timothy Christie, ethicist for Atlantic Health Sciences Corp. This poses a danger not only to the IDUs themselves but also to staff, patients, and visitors, all of whom risk being stuck by hidden dirty needles.

“The logical solution to improve safety is to give patients access to clean ones. I’m convinced of this,” said Christie. Also endorsing the idea is Dr. John Dornan, head of the department of medicine. Though Christie said hospital-based needle exchanges are “fairly uncommon” in Canada, he noted that St. Paul’s Hospital in Vancouver has long had one. St. Paul’s hosts the British Columbia Center for Excellence in HIV and AIDS, where Christie worked as director of ethics for four years and wrote the province’s needle exchange guidelines. “Saint John could be in the forefront on this,” he said.

In addition to the safety benefits, Christie said giving hospitalized IDUs clean needles promotes trust and

encourages discussions about other services. "They often ask for the referral to detox, or abstinence-based treatment programs," he said.

The policy Christie and Dornan are developing would have to be approved by various committees before going into operation. Expense is seen as minimal: A box of 1,000 needles costs about \$16 Canadian (\$13.58US).

*Byline: Bobbi-Jean MacKinnon*

*Source: CDC HIV/STD/TB Prevention News Update*

## **"About Half of HIV Transmission Occur in Early Stages of Infection, Study Says"**

*Globe and Mail (Toronto) • March 7, 2007*

**A**bout half of new HIV cases occur when the person transmitting the virus is in the early stages of infection and unlikely to know if he or she is HIV-positive, according to a study scheduled to be published in the April 1 edition of the *Journal of Infectious Diseases*, Toronto's *Globe and Mail* reports. For the study, researchers led by Mark Wainberg of the McGill University AIDS Centre conducted phylogenetic analysis -- a genetic analysis that clocks the virus' mutations to estimate the initial date of transmission -- among HIV-positive people in Quebec. They found that 49% of cases were clustered in a way that suggested they had been transmitted by people who recently became HIV-positive. When people first become HIV-positive, they have high viral loads, which increases the chances of transmitting the virus. Most people test positive for HIV two to four weeks after exposure; however, some people do not test positive until three to six months after exposure, according to Rita Shahin, associate medical officer of health at the Toronto Public Health Department. The study is raising questions in the medical community about how to identify people at high risk of contracting HIV for frequent HIV testing and whether people at an increased risk should begin taking antiretroviral drugs as a preventive measure, the *Globe and Mail* reports.

*Byline: Lisa Priest*

*Source: Kaiser Daily HIV/AIDS Report*

## **"NASTAD Issues Action Alert to Ask Congress for More Federal Funding for Hepatitis C Prevention"**

*Hep Express • March 7, 2007*

**T**he National Alliance of State & Territorial AIDS Directors (NASTAD) has issued an Action Alert regarding increased funding for hepatitis C prevention. President Bush's FY2008 proposed budget flat funds CDC's Division of Viral Hepatitis, which would result in further cuts to an already small hepatitis C allocation of \$17.6 million.

NASTAD encourages individuals and organizations to communicate a consistent message to their members of Congress, indicating that additional funding is needed to mount a public health response to viral hepatitis infections. NASTAD's Action Alert and examples of sample letters can be read in Word format by going to <http://www.nastad.org> and clicking on Hepatitis C Action Alert. Interested persons must contact their U.S. Representatives by March 16 and their U.S. Senators by April 13.

## **"International Narcotics Control Board Hindering HIV/AIDS Control Efforts, Should Be Independently Reviewed, Report Says"**

*Reuters • March 1, 2007*

**T**he International Narcotics Control Board is hindering efforts to fight the spread of HIV, especially among injection drug users, and its practices should be independently reviewed, according to a report released on Tuesday, *Reuters* reports. The report -- titled "Closed to Reason" and released by the Canadian HIV/AIDS Legal Network and the Open Society Institute -- says that one in three HIV cases outside of Africa are caused by injection drug use. The report adds that although the control board has acknowledged this problem, it has rejected "effective programs," such as needle-exchange programs and methadone treatment, *Reuters* reports. The control board is independent body of 13 members, who are elected by United



Nations members, that oversees the implementation of international drug control regulations, *Reuters* reports. According to Daniel Wolfe, deputy director of OSI's International Harm Reduction Development program, a report released in 2006 by the control board linked injection drug use to the spread of HIV worldwide 18 times, but it "failed even once to urge countries to pursue proven HIV prevention techniques such as syringe exchange." The report also called the control board a "closed body" that is "accountable to no one, that focuses on drug control at the expense of public health and that urges governments to do the same." The report recommends that the control board include members with HIV expertise and that U.N. Secretary-General Ban Ki-Moon commission an independent evaluation of board's work. In addition, the report calls for "great transparency and accountability" by the control board and recommended it "cite specific evidence for its observation about drug use and health and legal grounds for its interpretation of law".

Stephen Lewis, former U.N. special envoy for HIV/AIDS in Africa, on Tuesday joined the groups, saying, "It's as though the HIV/AIDS conjunction has passed the International Narcotics Control Board right by," adding, "They are aligning themselves with the virus rather than opposing it determinedly." Lewis also said that while he served as a U.N. special envoy, he expressed support for safe drug injection rooms, adding that the control board complained to former U.N. Secretary-General Kofi Annan about his comments. "The fact that they would write a letter attempting to silence a critic is a demonstration of how out of control" the board is, Lewis said. Koli Kouame, secretary of the control board, said that he had compared injection rooms to opium dens in a conversation with Lewis. "Mr. Lewis made a public statement in support of something which is in breach of the convention, which is an injection room," Kouame said. He added, "We should see these people get the treatment they deserve." The control board's annual report, which was scheduled to be released on Wednesday, says that injection rooms are unacceptable because they permit illegal drug use. The control board on Thursday denied claims that it is hindering HIV/AIDS

control efforts, saying that it supports needle-exchange programs but not poorly supervised injection rooms. It added that such rooms promote trade in illegal drugs. Control board President Philip Emafo said that claims made in the report are "misplaced and wrong".

The report is available [online](#).

*Byline: Michelle Nichols*

*Source: Kaiser Daily HIV/AIDS Report*

## "Senate Bill 767: The Drug Overdose Treatment Liability Act"

Harm Reduction Coalition • February 27, 2007

**S**enator Mark Ridley-Thomas (26th District) has agreed to author an overdose prevention bill in the California legislature. Senate Bill (SB) 767 would protect doctors, health professionals, patients, and their friends and family members who provide opiate antagonists, including naloxone, to those who need it. Naloxone (also known as Narcan®) is a medication used to counter the effects of opioid overdose. Specifically, naloxone counteracts life-threatening depression of the central nervous and respiratory systems, allowing an overdose victim to breathe normally. Naloxone is a nonscheduled (i.e., non-addictive) prescription medication with the same level of regulation as prescription ibuprofen. Although traditionally administered by emergency response personnel, naloxone can be administered by minimally trained laypeople, which makes it ideal for treating overdose in people who use heroin and other illicit opioids.

In most jurisdictions naloxone is only available to people experiencing overdose when emergency medical services are summoned. However, recognizing that many fatal opioid overdoses are preventable, a number of jurisdictions in California and throughout the United States are providing overdose prevention, recognition, and response training, including take-home prescriptions of naloxone, to drug users and their loved ones.

SB 767 would encourage such overdose prevention programs by ensuring that medical providers who prescribe naloxone to their patients are protected from civil or criminal liability if a patient uses his or her naloxone on someone else who is experiencing an overdose.

## **Funding Opportunities** **February 26, 2007**

### **Fund Title: Drug Abuse Aspects of HIV/AIDS**

**Description:** The purpose of this Funding Opportunity Announcement from the National Institute on Drug Abuse is to encourage drug abuse research to address the changing dynamics of the HIV/AIDS epidemic in the U.S., such as the increasing over-representation of minorities and women among new AIDS cases and role of heterosexual sex as a transmission route. Studies are needed to develop novel preventive interventions that more effectively address the evolving epidemic. NIDA seeks multidisciplinary, domestic and international research on drug abuse aspects of HIV/AIDS, and related co-infections. Investigators are encouraged to develop new and improved approaches to access and recruit hard-to-reach, active drug users to participate in basic, biomedical, and behavioral research, including intervention studies targeted at reducing drug use-related risk behaviors, disease transmission, and comorbidity and at enhancing utilization of HIV/AIDS, drug treatment, and other services..

**Web Page:** [Click](#)

**Application Due Date:** 07/05/2007 Cycle II,  
11/05/2007 Cycle III

### **Fund Title: Drug Abuse, Risky Decision Making and HIV/AIDS**

**Description:** This program announcement is intended to stimulate model driven research that will increase understanding of how drugs of abuse or processes of addiction influence decisions

about high risk sexual behavior, thereby enhancing vulnerability for acquiring or transmitting HIV. Research supported by this announcement will emphasize interdisciplinary studies that incorporate approaches from psychology, economics, anthropology, sociology, decision sciences, neuroscience, and computational modeling. Hypothesis driven research and modeling approaches that can guide empirical testing are encouraged. The study of decisions to engage in risky sexual behavior must be clearly the central focus of the proposed research.

**Web Page:** [Click](#)

**Application Due Date:** 06/05/2007 Cycle II,  
10/05/2007 Cycle III

## **“More Frequent Participation in Needle-Exchange Programs Does Not Increase Risk of HIV Infection, Study Says”**

Reuters Health • February 26, 2007

**M**ore frequent participation in needle-exchange programs does not increase risk of HIV infection among injection drug users, according to a study published in the February issue of the *American Journal of Medicine*, Reuters Health reports. Evan Wood of the British Columbia Centre for Excellence in HIV/AIDS and colleagues examined possible associations between high HIV incidence and frequent use of a needle-exchange program in Vancouver, Canada. The study was designed to re-examine the results of an earlier study in Vancouver that found higher incidence of HIV infection among IDUs who more frequently used the needle-exchange program. The researchers found that in comparison with less frequent needle-exchange users, daily needle-exchange program attendees were more likely to be female; Aboriginal or American Indian; living in unsteady housing; involved in commercial sex work; and daily heroin or cocaine users. Almost all of these factors are associated with an increased risk of HIV transmission and explain the higher HIV incidence among more frequent users of needle-exchange programs found in the earlier study, according to the

researchers. Needle-exchange programs have been shown to reduce HIV incidence, Wood said, adding that “another important goal they achieve is making contact with this often hidden population and providing a venue where drug users can be recruited into addiction treatment and other forms of care.”

The study is available [online](#).

*Byline: Will Boggs*

*Source: Kaiser Daily HIV/AIDS Report*

## ANNOUNCEMENT

**F**itpacks, which are disposable syringe disposal units, have recently been approved by the FDA for transportation of sterile syringes and disposal of used syringes. Syringes can be carried & returned without risk of needle-stick. The container is designed to hold 10 new syringes and as they are used they are deposited in a tamper resistant compartment within the same container to hold used syringes. FDA has determined this unit to be safe, with no contamination. They are now available for purchase from both Safety Works at <http://www.1800safety2.com/> and Total Access Group at <http://www.totalaccessgroup.com>, or call David Roddy at 800-320-3716 x 239. Fitpacks have been widely used by syringe exchange programs in the U.S. and Australia, and by pharmacy sales programs.



**Color:** Black or Yellow  
**Carries:** 10 syringes  
**Height:** 6 inches  
**Width:** 3 inches  
**Depth:** 1-1/2 inches

## “Unintentional Poisoning Deaths --- United States, 1999—2004”

MMWR Weekly • February 9, 2007

**I**n 2004, poisoning was second only to motor vehicle crashes as a cause of death from unintentional injury in the United States (1). Nearly all poisoning deaths in the United States are attributed to drugs, and most drug poisonings result from the abuse of prescription and illegal drugs (2). Previous reports have indicated a substantial increase in unintentional poisoning mortality during the 1980s and 1990s (2,3). To further examine this trend, CDC analyzed the most current data from the National Vital Statistics System. This report summarizes the results of that analysis, which determined that poisoning mortality rates in the United States increased each year from 1999 to 2004, rising 62.5% during the 5-year period. The largest increases were among females (103.0%), whites (75.8%), persons living in the southern United States (113.6%), and persons aged 15--24 years (113.3%). Larger rate increases occurred in states with mostly rural populations. Rates for drug poisoning deaths increased 68.3%, and mortality rates for poisonings by other substances increased 1.3%. The largest increases were in the “other and unspecified,” psychotherapeutic, and narcotic drug categories. The results suggest that more aggressive regulatory, educational, and treatment measures are necessary to address the increase in fatal drug overdoses.

The full report is at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5605a1.htm>

## ***"Second National Conference on Methamphetamine, HIV, and Hepatitis in Salt Lake City"***

Drug War Chronicle • February 5, 2007

**M**ore than a thousand people, including some of the nation's experts in treating, researching and developing responses to methamphetamine use, gathered for Science and Response: The 2nd Annual Conference on Methamphetamine, HIV and Hepatitis on Thursday. Sponsored by the Salt Lake City-based Harm Reduction Project, the conference aimed at developing evidence-based "best practices" for responding to meth and emphasized prevention and treatment instead of prison for meth offenders.

This year's conference was uncontroversial - a marked change from the first one, which was attacked by Rep. Mark Souder (R-IN) because presenters openly discussed the impact of meth on the gay community. Souder authored a successful amendment to the appropriations bill funding the White House Office of National Drug Control Policy calling for an investigation of the conference and HHS policy.

"The fact that there is absolutely no controversy this year indicates more than just a leadership change in Congress. It shows that our approach -- bringing together all the stakeholders and families affected by meth -- is the right one," said Harm Reduction Project executive director Luciano Colonna in a statement on the eve of the conference.

## ***"Hepatitis Breakthrough at University of Washington"***

Seattle Times • January 23, 2007

**A**fter making headlines last June as the first scientists to isolate human liver stem cells, the ancestors of all liver cells, Dr. Nelson Fausto and colleagues at the University of Washington have used those cells to devise a new way to grow hepatitis C virus (HCV) in the laboratory. The advancement is considered an important step in the quest for a vaccine and improved treatment for the blood-borne virus, which infects around 170 million people worldwide.

While other scientists have grown HCV using cancerous liver cells or using a virus from a patient with a rare case of rapidly advancing hepatitis, Fausto's team was able to grow HCV in normal liver cells, keeping the virus reproducing for at least two months. This length of time enabled HCV to infect liver cells, where it does major damage. "We'll be able to better see what damage is done to cells, and it will provide a way to test antiviral agents and help develop a vaccine," said Fausto.

HCV becomes chronic in the majority of patients. After 20 to 30 years, one-fifth of HCV patients have scarring of the liver that can lead to cancer. HCV is the leading reason for liver transplantation.

The new lab culture took about four years to perfect, said Fausto. The researchers injected the liver stem cells into a culture with HCV genetic material. The viruses then reproduced into the culture, the culture itself was mixed with more cells, and those cells became infected as well. The team also mixed the blood of patients infected with different HCV strains into the culture of liver stem cells. Again, HCV thrived and replicated. The next step is to determine whether laboratory animals can be infected with the laboratory-grown HCV, further establishing the viability of the culture as a way to study the virus, said Fausto.

The study, "Hepatitis C Virus Replication in Transfected and Serum-Infected Cultured Human



Fetal Hepatocytes,” was published in the American Journal of Pathology (2007;170:478-489).

Byline: Warren King

Source: CDC HIV/STD/TB Prevention News Update

## **“Multilevel Community-Based Intervention to Increase Access to Sterile Syringes Among Injection Drug Users Through Pharmacy Sales in New York City”**

American Journal of Public Health • January, 2007

American Journal of Public Health Vol. 97; No. 1: P. 117-124 (01..07):: Crystal M. Fuller, MPH, PhD; Sandro Galea, MD, DrPH; Wendy Caceres, BS; Shannon Blaney, MPH; Sarah Sisco, MPH; David Vlahov, PhD

In specific neighborhoods and among black and Hispanic injection drug users (IDUs), research has shown there is minimal use of pharmacies. The authors in this study developed a community-based participatory research partnership to assess whether a multilevel intervention would increase sterile syringe access through a new policy that permits nonprescription syringe sales in pharmacies.

Using South Bronx as a comparison, the researchers targeted Harlem in New York City. Information materials were disseminated at community forums, pharmacist-training programs, and counseling or outreach programs for IDUs. Researchers compared cross-sectional samples in three target populations (pre- and post-intervention): community members (attitudes and opinions), pharmacists (opinions and practices), and IDUs (risk behaviors).

Negative opinions of IDU syringe sales decreased among community members (N=1,496) and pharmacists (N=131) in Harlem, whereas the comparison community had either no change or an increase in negative opinions. While IDUs (N=728) increased pharmacy use in both communities, pharmacy use among black IDUs in Harlem

increased significantly, but not in the comparison community; syringe reuse decreased significantly in Harlem, but not in the comparison community.

“Targeting the individual and the social environment through a multilevel community-based intervention reduced high-risk behavior, particularly among Black IDUs,” the authors concluded.

Source: CDC HIV/STD/TB Prevention News Update

## **Join Together News Digests**

### [Study: Intensity of Drug Craving Underestimated](#)

Heroin addicts taking part in a monetary experiment tended to underestimate the intensity of withdrawal symptoms, leading researchers to conclude that if experienced users make such mistakes then the general public also is unlikely to understand the intensity of drug withdrawal.

### [12-Step Treatment More Effective than Alternative, Study Says](#)

Researchers from Stanford University found that a 12-step oriented treatment program that included attending Alcoholics Anonymous meetings boosted two-year sobriety rates by 30 percent compared to cognitive-behavioral programs.

### [Drugs Continue to Kill Baby Boomers](#)

Both current and past drug use continues to kill members of the ‘baby boomer’ generation.

### [Brain Has Remarkable Power to Recover from Alcohol Ravages](#)

Excessive alcohol use can literally shrink the brain, impairing memory, learning, and organizational skills. But the brain also can recover most if not all of its capabilities when drinking stops, researchers say.



## Study: Comprehensive Treatment Helps Homeless Youth Avoid Addiction

Researchers say that homeless youth who attended drop-in centers that provided a comprehensive intervention program significantly reduced their addiction and mental-health problems and enjoyed increased social stability.

## Rural Trauma Patients Often Test Positive for Alcohol, Other Drugs

Rural residents who make repeated visits to hospital emergency rooms were more likely to have high levels of alcohol in their system or use illicit drugs than one-time visitors, according to researchers.

## **PubMed Abstracts & Full Text Articles**

## Higher syringe coverage is associated with lower odds of HIV risk and does not increase unsafe syringe disposal among syringe exchange program clients.

Bluthenthal RN, Anderson R, Flynn NM, Kral AH. *Drug Alcohol Depend.* 2007 Feb 3

## Hepatitis C Treatment Candidacy and Outcomes Among 4318 US Veterans With Chronic Hepatitis C Virus Infection: Does a History of Injection Drug Use Matter?

Seal KH, Currie SL, Shen H. *J Clin Gastroenterol.* 2007 Feb;41(2):199-205.

## Liver transplant and hepatitis C in methadone maintenance therapy: a case report.

Hancock MM, Prosser CC, Ransibrahmanakul K, et al. *Subst Abuse Treat Prev Policy.* 2007 Feb 1;2(1):5

## Risk factors for methadone outside treatment programs: implications for HIV treatment among injection drug users.

Vlahov D, O'driscoll P, Mehta SH, et al. *Addiction.* 2007 Feb 15;

## FULL TEXT PDF ARTICLE

## Achieving a high coverage - the challenge of controlling HIV spread in heroin users.

Li MQ, Lee SS, Gan ZG, et al. *Harm Reduct J.* 2007 Feb 15;4(1):8

## Buprenorphine for the treatment of opioid dependence.

Boothby LA, Doering PL. *Am J Health Syst Pharm.* 2007 Feb 1;64(3):266-72.

Source: MedAdvocates